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ABSTRACT

Federal and local mandates to expand the services of school psychologists downward to children ages 3 to 5 and interest in private practice and employment in institutions other than public schools have increased school psychologists' desires for broader role definitions. To meet the needs of the client group created by recent changes in the profession, school psychologists need to increase their limited knowledge of infant assessment. A practicum was conducted to help school psychologists broaden their skills in this area. Specific practicum goals were (1) to provide an overview of nine major infant assessment devices; (2) to incorporate this overview into a programmed study guide that enables users to evaluate their initial knowledge base and post-study skills; and (3) to prepare professionals for potential service delivery. Five professionals in the field (two school psychologists, two pediatricians, and one developmental optometrist) used and reviewed the guide and its evaluation instruments. All participants demonstrated expanded knowledge following the course of study and reacted very favorably to the guide and its potential usefulness. Dissemination of the guide via publication and/or workshops is anticipated. (Appendices include tables of data on school psychologists' training, licensing, private practice, and continuing education. Also included are pretests and posttests and evaluation data.) (Author/CB)

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Self Study Guide for School Psychologists.

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N O V A U N I V E R S I T Y

Infant Developmental Assessment:
A Self Study Guide For School Psychologists

by

Stuart F. Langenthal

Cluster XIII

A Practicum Report Presented to the Ed.D. Program
in Early Childhood
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

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Abstract

Infant Development Assessment: A Self Study Guide for School Psychologists

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Descriptors: Infant Development/Infant Assessment/Self Study Guide/School Psychology/School Psychologist/Continuing Education/Early Childhood

This practicum addressed the needs and concerns of school psychologists regarding their desire for expanded role definitions and job functioning. The area of infant assessment was isolated as a focus for these professionals. Their limited knowledge base, as well as the expanding need for services in this area, both in the public as well as the private sector were areas of noted concern.

The writer's goals were (1) to provide school psychologists (and other interested professionals) with an overview of several major infant assessment devices, (2) to incorporate this overview into a programmed study guide which enabled the user to evaluate his/her initial knowledge base as well as post study skills, (3) to prepare these professionals for potential service delivery in this area.

Five in field professionals (two school psychologists, two pediatricians and one developmental optometrist) utilized and reviewed the guide as well as the evaluation instruments found within the guide. All participants (1) demonstrated expanded knowledge following the course of study and, (2) reacted very favorably to the guide and its potential usefulness. Dissemination of the guide via publication and/or workshops is anticipated.

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CHAPTER I

INTRODUCTION

Broward County is located in Southeast Florida and is bordered by the Atlantic Ocean on the East, Palm Beach County on the North, Dade County on the South and the Everglades area including portions of Hendry and Collier Counties on the West. Broward County was established in 1915 and was named after Napoleon Broward, who was the Florida Governor from 1905-1909.

Broward County covers approximately 1218 square miles. Its elevation is approximately 7-8 feet. The County includes twenty autonomous cities, each with their own governmental structure. A County Commission, comprised of elected city representatives, is the governing body for the County, setting County ordinances, taxes, etc.

According to the 1980 census, Broward's population was 1,014,043. This figure represents a 63.5 percent increase since the 1970 census (population - 620,000). While much of this growth can be attributed to migratory factors, the rate of live births also increased during this time period (nearly 4 percent). The 1980 census indicated that the population included 887,992 caucasians, 113,582 blacks, 1,386 American Indians, 4918 Asian/Pacific Islanders and 6165 classified as "other". (Florida Alamanac, 1983)

While Southeast Florida is often seen as a retirement haven, statistics indicate that less than one-quarter of Broward's population are social security recipients. Approximately twenty percent of the populace receive social security. While this figure represents twice the national average, eighty percent of the population may thus not be classified as "retired".

The average household income as reported in 1980 was \$20,921. Ten percent of the population had incomes over \$40,000, while thirty-one percent had incomes in the \$20,000-39,000 range. Broward's average income ranked fifth in the state, behind such counties as Dade, Palm Beach, Indian River and Seminole.

Public education in Broward County is centrally organized. There is a seven member elected school board, an appointed superintendent and three appointed area superintendents, (who supervise three large geographic areas within the county). During the 1981-82 school year, 127,758 children were enrolled in K-12 programs. Current figures are comparable. Approximately eighty percent of these youngsters are Caucasian, with fifteen percent Black and five percent Spanish/other. Population shifts within the County indicate that the older more established eastern areas have had declining enrollments, with several schools slated to be closed. Growth in Western Broward County has been great. Many schools are overcrowded and are on "double

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session". Recently three new high schools, and several middle and elementary schools have been built to accommodate this population.

In addition to public education, there are a large number of private schools, servicing approximately 20,000 children. It should be noted that a small percentage (approximately 1-2%) of these youngsters are serviced by Broward County School Psychologists, in accordance with P.L. 94142 Guidelines (1977, Federal Register).

The writer is a certified and licensed school psychologist currently employed by the School Board of Broward County. In addition, the writer maintains a part-time private practice (in school psychology). This practice is located in the City of Tamarac, which is in the western portion of the County.

Certified school psychologists are employed by the Broward County School system for a contract year of eleven months. There are currently sixty school psychologists (hereafter referred to as psychologists) assigned to the three geographic areas of the County, as well as to the departments of Early Childhood and Bilingual Education. Each psychologist is assigned to three-four schools which are serviced on a rotating basis. Additionally, the psychologist may service any private school youngster who lives within the feeder pattern of the assigned public schools.

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State certification as a "Specialist in School Psychology" and either a supervised internship or satisfactory experience as a professional psychologist comprise the qualifications for employment. School psychologists who are licensed by the Department of Professional Regulations (as opposed to the Department of Education) for private practice must have completed education at the sixty credit specialist or Doctoral level, have completed an internship and must have attended a National Association of School Psychologist approved training program. Licensure and certification are not reciprocal. Certification is necessary for public school employment; licensure is not. Many school psychologists who are currently certified do not meet the educational requirements for licensure (figures are unavailable).

Broward County School Board guidelines suggest that the psychologists major educational contribution is "to fully understand the student in terms of his assets, his liabilities and his dynamics. He then recommends steps to be taken in order to facilitate the student's learning and overall adjustment". To this end, the psychologist has the following performance responsibilities:

- 1) psychologically evaluates children who have been referred to the Psychological Services Area office.
- 2) makes diagnosis regarding why the child is behaving as

he is based on:

- 1) information from the parents.
 - 2) information from the school.
 - 3) psychological testing.
- 3) interprets diagnosis to parents, school personnel and, at parent's written request, to professionals outside of the school system. When necessary, also recommends appropriate steps to alleviate the child's problems.
 - 4) prepares written report of findings and recommendations.
 - 5) participates in Inservice Training Programs under direction of Director of Psychological Services and Area Coordinator of Psychological Services.
 - 6) assumes responsibility for:
 - 1) staying thoroughly familiar with current criteria for identifying and recommending placement of exceptional students.
 - 2) carefully following District Procedures in processing all students referred as possible candidates for Exceptional Student Programs.
 - 7) in those cases where placement in an Exceptional Student Program appears to be indicated, psychologist serves as member of staffing committee where all pertinent information is reviewed, an educational plan is prepared,

and the appropriate placement is recommended.

- 8) participates in periodic reviews and reevaluation of students in Exceptional Student Program.
- 9) Assumes responsibility for following procedures set up by Area Coordinator of Psychological Services, Director of Psychological Services and Director of Student Services.
- 10) keeps Area Coordinator of Psychological Services advised of any complaints or problems regarding Psychological services.
- 11) keeps Area Coordinator of Psychological Services advised of any complaints or problems regarding work area, secretarial services, material, equipment and supplies or financial/personnel matters.
- 12) in accordance with the state adopted Student Services Act, conducts, when appropriate, individual and group counseling activities with students for the purpose of facilitating personal, social, emotional and academic growth.
- 13) at principal's request: may also be involved in other activities within the school where his expertise as a psychologist would be of value - e.g., parent education groups, staff development meetings, speeches to P.T.A.,

service groups, etc., for purpose of interpreting services or programs available within the school, etc.

- 14) performs other duties and assumes other responsibilities as directed by the Area Coordinator of Psychological Services. (Broward County Schools Policy Manual, 1983).

The writer has been employed by the Broward School System for seven years. The writer services two elementary schools and one middle school. The middle school is located in an affluent upper middle class city in North Broward. The elementary schools are located in low socioeconomic areas; one school is predominantly Black, the other Caucasian. A potential case load of twenty-four hundred students is included in these school assignments.

In addition to the aforementioned, the writer maintains a private practice, servicing children from birth-eighteen years of age, living in Broward and Palm Beach Counties. During the first year and one-half of practice, the writer serviced approximately fifty families in this capacity. The writer has also serviced the Florida Department of Health and Rehabilitative Services (HRS). Evaluation of handicapped infants was a focus here.

CHAPTER II

STUDY OF THE PROBLEM

School Psychologists have been dissatisfied with their professional roles. In a recent survey of Broward County School Psychologists, sixty-two percent indicated that the current scope of their professional services was not broad enough to satisfy their personal and professional needs. (See Appendix M) Over ninety percent of the psychologist's time is spent in assessment related activities. Thus, screening perspective referrals, evaluations, report writing, interpretation of data, staff conferences, record keeping (re: children evaluated), etc., represent a main portion of the psychologist job function. (Dr. Lane Roosa - Personal Communications, March, 1983) Despite this apparent frustration, (or as a result of it), psychologists have continued to be motivated towards continuing education (in the hope of enhancing current skills or developing new areas of expertise). Fifty percent of those surveyed subscribe to professional journals; sixty percent participate in continuing education (at least one-two times per month). The majority of those surveyed indicated that self study and inservice workshops were the most proficient continuing education methods. (See Appendix C)

School Psychologists have indicated that certain expanded roles (within the schools) would be appropriate. Thus, pre-

school assessment, counseling and other follow-up with parents of children evaluated, more exposure to new test instruments and expanded consultation roles, were the most sought after activities. While psychologists may strive for more diversified job roles, certain political considerations create inhibitory situations. The existence of powerful state and local special education departments, and especially the linkage of funding and program placement, create significant roadblocks for psychologists seeking to emancipate themselves from the testing-placement mode of services. While Broward County maintains distinct departments of psychological services and special education, the daily functioning of psychologists is special education oriented.

The drive for independence, recognition and greatly expanded role opportunities has been most apparent in the enactment of legislation enabling school psychologists to function as private practitioners. Several states (California, Texas, Virginia, etc.), as well as Florida have enacted private practice legislation. (Lazarus & Jackson, 1983) While the history of the Florida Licensure Law will be more fully explored, those school psychologists presenting the appropriate credentials (already reviewed) were eligible for "grandfathering". Subsequent to January, 1982, School Psychologists applying for licensure were required to pass an examination (prepared by the Board of

Examiners) in addition to meeting the education criteria. Those licensed as School Psychologists were entitled to offer the following services to individuals, groups, organizations, government agencies or the public:

1. Evaluation, measurement, assessment or intellectual abilities, aptitudes, or achievement that directly relate to learning or behavior problems in an educational setting, in order to determine appropriate recommendations.

2. Psychoeducational or vocational consultation, or direct psychoeducational services to schools, agencies, or organizations, which directly relate to learning problems.

3. Development of programs to facilitate the learning processes of clients.

While these guidelines for services are quite limited compared with APA Division 12 Guidelines for the Practice of School Psychology (Bardon, 1982) and are being challenged in the courts, they do represent a significant compromise with the Florida Psychological Association, which has been non-supportive of sub-doctoral licensure.

Of those school psychologists surveyed, thirty-two percent indicated that they are currently licensed, with nearly forty percent of these individuals engaged in private practice. An additional twenty-three percent of those responding to the recent

survey are planning or engaging in private practice. (See Appendix E).

With the aforementioned role dissatisfaction, as well as an apparent intrinsic desire to expand one's knowledge base and/or maintain high levels of functioning, where might school psychologists interests be and what are their present needs vis a vis training in these areas of interest?

With the enactment of PL-94-142 (Federal Register 1975), public schools were required to expand their traditional scope of services to populations hitherto unserved by public school systems. In this regard we note that services are now mandated for the age groups 18-21 and 3-5. A growing number of states have responded to the letter as well as the intent of the legislation and are providing services to the age group 0-21 (e.g. Maryland). A mismatch was thus created between what traditional graduate education programs were providing and the new services that were being required. This mismatch has likewise been evident in School Psychology. Sixty-credit school psychology training programs generally offer courses in the following areas of study:

- Individual Intellectual Assessment
- Child Psychopathology
- Learning Disabilities
- Speech/language Development
- Personality Assessment

Academic Assessment

Personality Development

Internship (Brown 1979)

Of those responding to the recent survey, courses in personality development and assessment, intellectual assessment, academic assessment and an internship formed the major part of their program (See Appendix D). While many of these courses followed a developmental approach, it is of interest to note that sixty-eight percent of school psychologists surveyed have, for example, never observed an infant; seventy-nine percent never assessed an infant, and eighty-six percent were never involved in an infant case study. These figures improved significantly when discussing the pre-schooler (3-5 years of age). Here, sixty-one percent had completed a case study of a pre-schooler and seventy-two percent had evaluated a pre-schooler.

While has been apparent that school psychologists lacked training in infant assessment, and while many have not provided direct services to infants (within the public schools), they are in a position to review case histories of those youngsters who were referred for an evaluation. In many instances, these youngsters have had extensive neurological and developmental workups and the school psychologist is in a position to coordinate and correlate this data with current measures.

Additionally, school psychologists regularly consult with pediatricians and neurologists, as part of their case studies. While the lack of training in issues relating to infancy has been noted, a serious concern has been suggested regarding the school psychologists' lack of knowledge of some frequently used infant assessment measures. The recent survey suggests that thirty-three to seventy-five percent of school psychologists were not familiar with such instruments as the Bayley Scales of Infant Development, the Denver Developmental Screening Test, the Brazelton Neonatal Scale and the Uzgiris-Hunt Scales. (See Appendix B) As noted, School Psychologists should be aware of the predictive validity of these instruments as well as their diagnostic capabilities.

In summary, it appears that:

1. School Psychologists have been dissatisfied with their narrow role as assessment specialists, especially in relation to special education.
2. Legislative mandates have been requiring educators to provide services to populations hitherto unserved, and School Psychologists had been unprepared for this potential role. School Psychologists had been unfamiliar with new and/or traditional infant assessment devices.
3. School Psychologists are interested in continuing education regarding enhancement of skills and/or retraining in specialty areas.

CAUSES OF THE PROBLEM

The field of school psychology emerged from a need to identify and classify children for the purpose of providing special education (Bardon 1982). In particular, schools were concerned with the identification of those children considered to be mentally handicapped or "backward". While the earliest school psychologists were in essence those with a more clinical background, the need to train individuals in the administration of the Stanford-Binet Intelligence Scale led colleges and universities to offer these courses to qualified candidates. State Departments of Education began to credential those individuals trained in "testing" and by 1950, thirteen states had begun to certify personnel functioning under the titles school psychologist, clinical psychologist, psychometrist or tester (Bardon, 1982).

Thus, the emergence of school psychology as a profession, was, from the outset, governed and ruled by state departments of education. As the number of school psychologists swelled during the past twenty years, it gradually became apparent that the title "School Psychologist" carried several connotations. The professional school psychologist was relegated to functions solely within school systems, yet at the same time carrying the title

school PSYCHOLOGIST, and recognizing that a child's school performance reached far beyond the schoolhouse doors. The title of school psychologist, however, was only to be utilized within the context of an educational setting (Fla. Statutes, Chap. 490, 1977).

The disparity between the services a school psychologist may be trained to offer and the restriction on his services, both in school and particularly in the community, eventually led to the formation of a separate organization of psychologists - the National Association of School Psychologists (NASP) (Brown, 1982). The distinct interests of school psychologists, as opposed to generic psychology, represented by the American Psychological Association (APA), were the aspirations of NASP.

Presently, the role and training of school psychologists appear to be influenced by several factors. NASP has, within the past decade, become constitutionally associated with the National Council for Accreditation of Teacher Education (NCATE). Through this organization, NASP has advocated the sixty credit specialist level training program for school psychologists. This level of training has been advocated for both entry level into the profession, as well as for private practice credentials (Brown, 1982). The impact of the NASP/NCATE alliance has recently been felt in Florida, where the 1979 Psychological Services Act encor-

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porated many of their guidelines into the private practice legislation for school psychologists.

The second major influence has been that of Federal legislative mandate. Perhaps the major influence in the past ten years has been the passage of Public Law 94-142 (1975). This law authorized the downward extension of public education to potentially handicapped children. Educators, including school psychologists were now mandated to provide services to a population who, in many instances, they were unprepared to serve.

7 On a local level, Broward County has responded to this potential need by employing one "pre-school psychologist" and several psychologists associated with three Early Identification Teams. Ultimately however, assessments of incoming pre-schoolers are conducted by the "home school's" psychologist. Training in the use of appropriate instruments has not been conducted in a systematized manner and thus a gap in service delivery exists.

It is apparent that the causes of the current problem are multifaceted. School psychologists are seen as PSYCHOLOGISTS by school personnel but continue to function in narrow roles. Lastly, professional organizations and legislators are attempting to define job titles and roles for school psychologists which may not be consonance with past training.

Literature Review

School Psychology appears to be a profession in search of a future. One need only make a cursory review of the literature to discern the forces shaping school psychology. Ysseldyke (1978) for example expressed concerns over the historically narrow role descriptions of school psychology as defined by state education department statutes. He notes that a "training gap" exists between the kinds of services school psychologists are being required to perform and the nature of their prior training. He cites PL 94-142 and its mandates, including the expanded rights of children, non-discriminatory assessment, mainstreaming, individualized instruction, etc. as producing an impetus for change in school psychology. Others (Hayes, Clair 1978) while cognizant of these external factors, see school psychology as ultimately "dying" unless a "rebirth" can occur which would provide new directions for school psychology. These new directions would be internally motivated. Trachtman (1981), in an elegant address at the Spring Hill Conference on the Future of School Psychology examines these issues in terms of "professional practice", "guild issues" and "professional survival" issues. Tracthman, a firm advocate of a broad role definition of school psychology, notes that the school psychologist (in the field) must be a "generalist" and be broadly educated in order to provide a

variety of professional roles. He takes issue for example with APA standards for professional entry into the field (e.g. private practice). In this light he cites the minimal or non-existent differences in competency between those holding a sixth year certificate and those holding a doctorate in school psychology. These concerns can be placed in perspective when viewed as a local issue. Lazarus and Jackson (1983) carefully review the history of school psychology licensing in the State of Florida. The entry level issue (Doctoral vs. Sixth Year Certificate), the restraint of trade issue, the elimination of all licensing for mental health professionals and ultimately the passage of an omnibus Psychological Service Act (1979) are thoroughly reviewed. Utilizing many of Trachtman's conceptualization (1981), NASP/NCATE guidelines (Gutkin, Reynolds, 1982, etc.), Florida now joins a handful of states which license sub-doctoral school psychologists.

In addition to these competency issues, Trachtman (1981) views school psychology as both a specialty within generic psychology and as a profession amenable to subspecialty interest areas. Of note is his observation that "the greatest concentration of any subspecialty (in school psychology) is pre-school and early childhood development and assessment". John Guidabaldi (1982) expands the concept of an early childhood

school psychologist by suggesting that the school psychologists become a link between home and school, shaping new family environments and child rearing practices. He sees this movement as allowing school psychologists to "transcend future shock". Other writers (Brown, 1979, Levenson and Hohenshil, 1983) see the school PSYCHOLOGIST as a generalist whose functioning needs to be reconceptualized to include educational development throughout the life span.

When one examines the range of job settings and potential areas of expertise for school psychologists, one quickly realizes the breadth of school psychologist functioning (Reynolds and Gutkin, 1984). This writer recently requested (via advertisement in the NASP Guidepost) information regarding school psychologists who, for example, are actively engaged in services to infants. There appears to be both a great interest in this specialty area, as well as a variety of settings in which this specialty is practiced (Boyd, Personnel Communication, March 1983). We thus find school psychologists serving in developmental centers, in neonatal units of hospitals, etc. Many respondents indicated that their expertise in infant assessment was gained through self study and enrollment in post graduate coursework. All respondents supported the need for training in this area.

The school psychology literature is beginning to respond to

the knowledge gap in this expanding specialty area. Infant assessment, per se, the link between assessment and curriculum and the predictive validity of infant assessment instruments seem to predominate. One finds, for example, studies examining the 'overlap' between the lower levels of the Stanford-Binet and the Bayley Scales of Infant Development (Madison and Adubato, 1983). Other studies ranged from a review of infant reinforcement schedules to be used in operant learning exercises with young handicapped children (Fox, Wise 1981) to a review of infant temperament measures (Martin, 1983). The latter study reviews the history of temperament scales. The author indicates that the most popular instrument, the Cury Infant Temperament Scale, has uncertain validity, and is based on spurious norms. The author presents his own recently developed scale which appears to have promising psychometric qualities.

A recent text, Psychoeducational Assessment of Preschool Aged Children (Paget and Bracken, 1983) explores the scope of pre-school assessment and notes the need for additional training in this area. Lastly, the Handbook of School Psychology (Reynolds and Gutkin, 1982) attempts to fill the same need by devoting a chapter to Assessment of the Pre-School Youngster.

Several pertinent issues relating to the evaluation of infants, including levels of assessment, predictive validity,

norm and criterion referenced testing and the discontinuity of early development are explored in Topics In Early Childhood Special Education (1981, 1983).

Three levels of screening/assessment are identified:

1. Primary screening level which includes the initial assessment of at risk factors. The goal here is to limit the number of false positive identification.

2. Secondary screening and diagnostics would explore, to some extent, the specific area of dysfunction in all children suspected of being at risk.

3. The tertiary level of diagnostics involves the identification of the child's strengths and weaknesses in terms of skills that may be used to facilitate program placement, developing individual educational plans, etc. (Brooks-Gunn and Lewis, 1983)

The current practice of screening and diagnosis (of infants) reflects a change in philosophy since the earliest norm reference tests. previously the extensive use of developmental ages and quotients for the purpose of classification and segregation of abnormal children was primary (Shenkoff, 1983). Currently, the traditional medical model has been modified to meet the demands for qualitative data that can be translated into individualized strategies for facilitating optimal developmental progress. Gunn and

Lewis (1983) describe the primary, secondary and tertiary screening and diagnostic process in these terms. They view the use of medical, environmental and parental measures, rather than the direct 'testing' of a child to optimally meet diagnostic needs. They cite, for example, the Caldwell Home Inventory (1975), an early environment measure, as having significant predictive validity (at six months) in terms of Stanford-Binet IQ at $4\frac{1}{2}$ years of age. Birth certificate variables have likewise been shown to effectively predict later "at risk status". Thus, the mother's age at birth, the birth weight, number of previous infants who died at birth, etc., are variables to be considered.

Dunst (1983) notes the dearth of secondary diagnostic tests. The Denver Developmental Screening Test, a commonly used milestone based test adapted from the Gesell Schedules, is cited as having high concurrent validity with the Bayley Scales of Infant Development (BSID), when large numbers of retarded children are included in the sample [.89 for three year olds] (Gunn, Lewis, 1983). The probability that both the Denver Developmental Screening Test and the BSID would classify a subject as "abnormal" was .29. The probability that both would classify a child as "normal" was .88. The Denver Developmental Screening Test is seen as having limited value in determining which children should be tested more extensively.

A tertiary level instrument may include the Bayley Scales of Infant Development, the Alpern-Boll Developmental Profile, the Marshalltown Developmental Profile, the Uzgis-Hunt Scales, and the Dunst revision of the Uzgis-Hunt Scales (Brooks-Gunn and Lewis, 1983).

Prediction of future ability has been a goal of such tertiary instruments as the Bayley Scales. Adequate predictive validity does not occur until the subjects are more than two years of age (Shankoff, 1983). Predictive validity improves significantly, however, if both normal and retarded infants are included in the sample. Seventy-three percent of a sample of moderately to profoundly retarded infants (as assessed by the BSID) were still classified as severely retarded when retested one-three years later. The predictive validity for less severe disabilities is near .30 (Dunst, 1983). Dunst summarizes his concerns over norm referenced infant tests by noting that these "assessment tools were developed in a different era and attempted to use simple (traditional) instruments to answer complex contemporary questions. Current responses to atypical youngsters demand qualitative descriptive data that can be translated into individualized strategies".

The development of ordinal scales of infant development which stress "sequential and hierarchical growth", and reflect

"discrete abilities and traits that are in prominence at different levels of development", appear to meet current needs in this area. School psychologists are fully cognizant of issues relating to norm referenced tests (Reynolds & Gutkin, 1982) and may view such instruments as the Uzgiris-Hunt Scales and the Dunst revision as meeting the training needs as well as the diagnostic needs of infants. Akin to criterion referenced tests, ordinal scales are used to elicit optimal levels of performance. When these instruments are used in conjunction with measures of social performance (e.g. Caldwell Home Inventory, 1975), the effects of environmental influence can be more clearly discerned.

The writer has attempted to describe a profession which is in a state of flux. School psychology is attempting to emerge as a distinct entity while concurrently dealing with external factors which delimit growth. Emerging areas of interest for school psychologists, which are in essence logical extensions of current practice were explored. As experts in psychometrics, education and child development, school psychologists will find the emerging field of infant assessment and education to be, in the writer's opinion, an area in need of trained providers. The need for providers as well as a need for re-training exists simultaneously.

CHAPTER III

The major goal of this practicum has been the enhancement of the school psychologists' knowledge base as it relates to infant assessment. School psychologists, pediatricians and a developmental optometrist were provided with a self study module pertaining to this growing area of interest and need. This module may in the future be used to augment school psychology course work.

Expected Behaviors Following Implementation

The following goals were projected for this practicum:

1. Guide users would demonstrate an understanding of commonly used infant assessment terms.
2. Guide users would demonstrate an understanding of the major infant assessment instruments, including:
 - A. Names of such instruments
 - B. Age range
 - C. Underlying rationale
 - D. Types of scores obtained
 - E. Validity and Reliability Data
 - F. Scoring procedures
 - G. Interpretive guidelines
3. Guide users would demonstrate an understanding of the current research pertaining to each instrument (e.g. correlations between these instruments and subsequent school achievement and/or school related psychometric instruments).

Standards of Performance:

A pre-test covering the aforementioned areas provided a baseline performance for each participant (See Appendix J). The pre test consisted of fifteen "matching" type questions covering basic knowledge of infant assessment devices and issues in infant assessment. Subsequent to the prescribed course of study, participants completed a mastery test which consisted of twenty-five multiple choice questions as well as an optional essay. The questions were based on the information presented in the preceeding chapters. (See Appendix L). Psychologists will demonstrate competencies in the following areas:

1. Terms
2. Assessment Instrument
3. Research

Competency was defined as an average of 80% accuracy on the mastery test, which included questions covering each competency area.

Subsequent to the completion of the post-test, study guide participants evaluated both the guide as well as the standards of performance instrument (pre and post tests) (See Appendices G&H). The study guide was be evaluated in the following areas:

- A. Objectives
- B. Scope and Sequence
- C. Applicability

Statements within each area were rated on a scale ranging from "strongly agree" to "strongly disagree". Percentages of responses were computed (for each question and major evaluation area).

The post test instrument was evaluated in the following areas:

- A. Curriculum Relevance
- B. Face validity (readability, directions, etc.)
- C. Scope

The format for the evaluation of both the guide and test instruments was modeled after similar evaluation instruments used by Nova University. The writer has found that this format allows for adequate feedback vis-a-vis subsequent revisions.

Analysis of the Data:

The following data is be available for evaluation:

- A. Pre Test-Post Test score differences. Percentage of growth following completion of the study guide.
- B. Guide evaluation: percentages of agreement/disagreement were calculated for each evaluation area as well as for specific questions (i.e. overall relevance, etc.)
- C. Post Test evaluation: percentages of agreement and disagreement were calculated for each evaluation area.

The aforementioned data is presented via tables.

CHAPTER IV

There is perhaps no other single subspecialty in the field of psychology in which there is a greater demand for continuing professional development than school psychology (Walkin, 1977). Writers have referred to the "half-life" of knowledge and skills as it relates to professional competence (Rosenfield, 1981 and Hynd, Pielstick, Schakel, 1981). These authors have defined "half life" as "the time, after completion of professional training, when, because of new developments, practicing professionals have become roughly half as competent (as they were upon graduation) to meet the demands of their profession." The half life for psychology training seems to average ten-twelve years. The rate of change in school psychology service delivery seems to be more rapid since it is reactive to the fast paced changes in educational and developmental psychology. (Rosenfield, 1981). It is thus estimated that the half life of school psychologist knowledge is perhaps three-five years. Further, it should be noted that in addition to new knowledge and skill areas, many current skills tend to deteriorate, even with frequent use. The continued use of techniques can lead to staleness, boredom and the acceptance of shortcuts (Houle, 1980). Houle notes that while the beginning professional is thorough and slow (in his task approach), the experienced practitioner is more

efficient, but this is accompanied by some loss of precision and attention to detail.

The issue of continuing professional growth of practicing school psychologists can perhaps be viewed from two perspectives; 1) professionally sponsored and organized group experiences, and 2) self managed professional development (Rosenfield, 1981). An examination of the options available for professional growth in school psychology is suggestive of extensive opportunities. School Psychologists in Broward County may have the following options:

1. Informal self study
2. National Association of School Psychologist Inservice Training Network (Worken 1977)
3. Continuing Professional Development Program (NASP)
4. Continuing Education Program (APA)
5. Teacher Education Council - Broward County Schools Inservice Training
6. Florida Diagnostic and Resource System Inservice Program
7. Conventions sponsored by local state and national organizations
8. Journal subscription

School psychologists may use these (non-exhaustive) resources to fulfill personal and/or mandated goals or requirements. Within the Broward County Schools, psychologists must complete

(by contractual agreement) six graduate/undergraduate credits in order to sustain salary differentials. The Florida Department of Education likewise requires six college credits for a five years extension of the state certificate. The Florida Department of Professional Regulation requires licensed school psychologists to complete thirty continuing education credits for license renewal. Many of the aforementioned organized programs can be used to satisfy these requirements.

It is of interest to note that despite the availability of organized, and sequential continuing education programs, large scale interest in organized programs is lacking. (J. Schackel Personnel Communications, April, 1981). This is noteworthy in light of the fact that one hundred percent of the recently polled school psychologists indicated that they were involved in continuing education (see Appendix C).

Rosenfield (1981) discusses the needs of the adult learner, and cites a distinction between "androgogy" and pedagogy". Androgogy relates to the adult's need, as he matures, to increase his capacity to be self directing, to utilize his experience in learning, to identify his own readiness to learn, and to organize his learning around life problems. Pedagogy generally involves having the decisions regarding learning made by others.

After a school psychologist has graduated from a training

program, the decision to continue his/her learning is made primarily by the individual practitioner (although the needs of the profession, the employer and society are clearly considered). The educational approaches, as represented by "andragogy" and "pedagogy" need to be considered in terms of competency objectives. Which philosophy will most satisfy this goal? Houle (1980) sees "a mindless proliferation of courses and conferences, each of which might be of some value", but when viewed from the broad perspective "may not be based on a unifying conception of education which can be used in a mature, complex and continuing way to achieve excellence of service throughout the life span".

A systematized approach to self managed professional (continuing) education has been proposed for the specific use of mental health professionals (Houle, 1982). This approach includes allowing the individual to plan for his own continuing education to fit his individual needs, interests and concerns. It provides a structured method for determining needs, assessing practice, setting specific learning objectives, deciding how to achieve those objectives, inventorying available learning resources, deciding priorities and scheduling and evaluating the learning experience/achievement. Houle (1982) provides worksheets and a step-by-step guide for his program.

Continuing education, when viewed from the philosophical and practical perspectives noted, should thus represent an individual's need, and be highly structured in terms of broad goals. Individual school psychology practitioners, while faced with a myriad of continuing education options, need to carefully examine the aforementioned issues.

This writer has been involved in the NASP Continuing Education Programs since 1980, receiving the Continuing Professional Development Award in 1982. The writer has also helped design and implement a guided/independent study program for graduate students involved with Nova University's Center for the Advancement of Education. The NASP program involves the documentation of participation in various types of programs (course work, paper presentations, teaching, etc.) (Wacher 1977). A fee is required for participation, and the individual is asked to provide extensive documentation of other involvement in prescribed activities. In 1982 approximately fifty psychologists were awarded the Continuing Professional Development Certificate (there are eight thousand NASP members!) While it is modeled after a successful Continuing Education program sponsored by the American Psychological Association, the NASP program has attracted very limited interest (Hynd, Pielstick, Shakel, 1981).

Other efforts at continuing education stressing a competency based approach have been attempted. The NASP Network, a new self study approach appears to have merit (Hynd et al 1981). Thus far, a self study module has been developed relating to behavioral observation/intervention. The writer has not had an opportunity to evaluate the program, nor to gauge its popularity. As noted, the writer has developed and implemented a self study guide for Nova University. Evaluations of these guides as well as their continued use were all suggestive of the success of this approach.

While the NASP Network approach and the Nova University Guided Study Program may have different audiences and different intentions, the concept of self study and subject mastery seems to be an intuitively appealing one. The versatility of these programs makes them amenable for incorporation into several settings (augmenting formal course work, seminars, etc.) Thus, flexibility, practicability and lowered costs are intrinsic advantages. Such an approach would in addition meet the needs of school psychologists whose focus may be introductory training in a new or applied content area.

The proposed solution strategy involved the development of a self study guide primarily for school psychologists interested in an introduction to infant assessment. The study guide was be field tested and evaluated by a sample of two Broward County School Psychologists, two pediatricians and one developmental optometrist. The use of other professionals grew out of the writer's interest in ascertaining the wider applicability of the guide.

Prior to commencing study, each participant self administered and scored a pre-test composed of matching questions relating to the field of infant assessment as well as to the aforementioned instruments. A multiple choice post test was self administered and scored subsequent to completion of the study guide. Each participant was asked to evaluate both the study guide and the post test. Participants were initially asked to spend a minimum of one and one-half hours reviewing each chapter and responding to the study questions. While a suggested study guide outline will provide a time line for self instruction, for the purposes of this field test, participants will be asked to complete the module within one month of its receipt. All of the participants completed their tasks within two weeks.

Nine infant assessment measures were reviewed in chapter format. Each chapter included the following:

1. History/background of the test instrument
2. Description of the instrument including:
 - A. Target population

- B. Test Format
 - C. Administration
 - D. Scoring procedures
 - E. Validity/Reliability
- 3. Research/literature review
 - 4. Study/Review question

The selected infant assessment devices reflected 1) the results of the needs assessment, 2) frequency of occurrence in the literature, 3) use of such instruments by school psychologists currently engaged in infant assessment. The following instruments will be reviewed:

- A. Alpern-Boll Developmental Profile
- B. Apgar Measure
- C. Bayley Scales of Infant Development
- D. Brazelton Neonatal Scale
- E. Brigance Diagnostic Inventory of Early Development
- F. Cattell Infant Development Scale
- G. Gesell Developmental Schedules
- H. Uzgiris-Hunt Scale
- I. Temperament Measures

CHAPTER V

As the practicum evolved, it became apparent that the initial target audience (school psychologists) could be expanded to include other disciplines, where knowledge of infant developmental assessment would prove beneficial. In this light the guide was reviewed by two practicing school psychologists, two pediatricians and a developmental optometrist.

The objectives which were delineated in Chapter III continued to be applicable despite the addition of the aforementioned professionals. In summary, the participant's knowledge of infant assessment instruments was initially evaluated via a pre-test. Subsequent to the study guide's review, participants completed a post-test which was referenced to the initial objectives. Participants also completed evaluation of the test instruments as well as the study guide.

A review of the data contained in Appendix N suggested that all participants presented with fairly well developed knowledge/skills regarding infant developmental assessment. School psychology participants (Appendix N, B&E,=), presented as the least informed, while the pediatricians (Appendix N, C and D) presented as the most knowledgeable. The developmental optometrists knowledge base was midway between these groups. This score dispersion was intuitively expected (by the writer.)

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All participants met the post-test criteria of 80% correct responses. The school psychology participants showed the most growth (percentage change between pre and post-test). While it was not clear how style of study, prior knowledge and actual time allotted for study affected the success rates indicated (Appendix O), these factors need to be considered when evaluating the effectiveness of this course of study.

The participants' evaluation of the post-test instrument as well as the potential usefulness of the guide itself were overwhelmingly positive (see Appendices O and P). All participants were either in "strong agreement" or "agreement" that the post-test was quite adequate in terms of validity, format, sampling of items to be mastered, etc. An area that may need some minor revisions pertains to the use of the post-test to delineate content areas that may need additional study. While it was the author's intention to survey all aspects of the guide (within the post-test) the instrument was not intended as an exhaustive content review of each instrument. A more encompassing post-test may be appropriate.

Data regarding the participants' evaluation of the study guide suggests that the objectives, scope and sequence of the guide and applicability were all positively reviewed (see Appendix P). Several participants did suggest that certain in-field professionals (i.e. pediatricians), might complete the study guide

at a faster pace than initially suggested. Additionally, the participants suggested that the guide was most appropriate as a self study or workshop tool, than in a formal coursework format.

In summary, the self study guide met with very favorable responses from the field reviewers. The direction of the evaluations was suggestive of a technically well developed study guide device. Additionally the cross disciplinary nature of its potential audience was noteworthy.

As a result of this successful field test, the writer will be initiating the following dissemination activities:

1. The writer will be forwarding a copy of the guide to the Director of Psychological Services for the Broward County Public Schools in an effort as ascertaining interest in presenting the guide to groups of Broward County School Psychologists.

2. The writer will be contacting the coordinator of the National Association of School Psychologists (NASP) Network (an inservice program) regarding the potential use of the guide. Contact with the Professional Development Committee of NASP regarding self study use will also be initiated.

3. The writer will be contacting several publishing houses regarding potential publication interest.

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APPENDIX A

Table 1

Demographic Data for Broward County School Psychologists

<u>Category</u>	<u>Percentage</u>
<u>Age</u>	
22-25	2.5
26-32	17.5
33-42	62.5
43-55	15
over 55	2.5
<u>Sex</u>	
Male	25
Female	75
<u>Degree</u>	
Masters	30
Masters + 15	5
Masters + 30	25
Ed.S.	20
Ed.D/Ph.D.	20
<u>Years Exp.</u>	
0-3	20
4-6	30
7-10	27.5
over 10	22.5

APPENDIX BTable 2School Psychologist Familiarity with Infant Assessment Instruments

<u>Instrument</u>	<u>Utilized</u>	<u>Familiar/Not Utilized</u>	<u>Not Famil.</u>
Gesell Readiness Test	13%	74%	13%
Brazelton Neonatal Scale	3%	21%	76%
Gesell Develop. Schedule	16%	75%	9%
Cattell Inf. Intell. Scale	21%	46%	33%
Bayley Scales of Inf. Dev.	41%	49%	10%
Uzgiris-Hunt Scale	8%	13%	79%
Behavior Rating Scale for for Autistic and Other Atypical Children	13%	16%	69%
Denver Devel. Screening Test	18%	28%	54%
Minn. Child. Devel. Inv.	5%	18%	77%
Alpern-Boll Devel. Profile	3%	3%	94%
Pre-School Attainment Record	28%	33%	39%
Caldwell Home Inventory	0	8%	92%
Cary Temperament Quest.	0	3%	97%
Brigance Diagnostic Inv. of Early Devel.	18%	5%	77%

APPENDIX C

Table 3
Continuing Education of School Psychologists

<u>Method</u>	<u>Percentage</u>	<u>Frequency Percentage</u>		
		<u>Once</u>	<u>Once</u> <u>Sev.</u> <u>Months</u>	<u>Once/Yr.</u>
Self Study	20	---	---	---
College Course Work	7	---	---	5
Professional Workshops	73	58	33	9
Journal Subscriptions	50	---	---	---

APPENDIX DTable 4Coursework Completed During School Psychology Training Programs

<u>Course</u>	<u>Percentage Completed</u>
Individual Intell. Ass.	100%
Child Psychopathology	79%
Learning Disabilities	79%
Speech/Language Devel.	62%
Personality Development	95%
Personality Assessment	92%
Child Development	62%
Academic Assessment	81%
Internship	83%

APPENDIX E

Table 5

School Psychology Licensure and Private Practice Data

<u>Status</u>	<u>Percentage</u>
Licensed as School Psychologist	32%
Unlicensed	68%
Engaged in Private Practice	38%
Planning to Engage in Private Practice	23%
Uncertain	30%
Not Interested	8%

APPENDIX FTable 6Consultation Practices of School Psychologists

<u>Consultant Group</u>	<u>Frequency</u>			<u>Rank Order of Frequency</u>
	<u>Regularly</u>	<u>Occasionally</u>	<u>Never</u>	
Pediatricians	0	72	28	3
Pediatric Neurologists	0	67	33	2
Psychiatrists	3	67	30	1
Family Practitioners	-		100	4

APPENDIX G

POST TEST EVALUATION

NAME: _____

DATE: _____

Instructions: Please respond to the items below by circling the number that most closely represents your feelings. You are encouraged to use the comment section to add information when appropriate:

- 4 - strongly agree
- 3 - agree
- 2 - disagree
- 1 - strongly disagree

Statement	Circle One	Comments
1. The post test was an adequate reflection of the stated objectives.	4 3 2 1	
2. The face validity of the post test was adequate in terms of general content.	4 3 2 1	
3. The multiple choice format is an adequate objective measure for this course of study.	4 3 2 1	
4. The test questions provide an adequate sample of mastered material.	4 3 2 1	
5. The post test will provide useful information regarding content areas needed to be brought to mastery.	4 3 2 1	

APPENDIX H
STUDY GUIDE EVALUATION

NAME: _____

DATE: _____

Instructions: Please respond to the items below by circling the number that most closely represents your feelings. You are encouraged to use the comment section to add information when appropriate:

- 4 - strongly agree
- 3 - agree
- 2 - disagree
- 1 - strongly disagree

<u>Statement</u>	<u>Circle One</u>	<u>Comments</u>
<u>Section A - Objectives</u>		
1. The objectives provide enough breadth for this introduction to infant assessment devices.	4 3 2 1	
2. The objectives were clearly written.	4 3 2 1	

Statement	Circle One	Comments
-----------	------------	----------

Section B - Scope and Sequence

1. The amount of time given 4 3 2 1
to complete this study
area was sufficient for
mastery.
2. The guide proceeded in a 4 3 2 1
clear, logical sequence.
3. Face validity, including 4 3 2 1
readability, physical
arrangement, etc. was
adequate.
4. The content of the guide 4 3 2 1
reflected a good intro-
duction to this study
area.

Section C - Applicability

1. I do not see this guide, 4 3 2 1
as presently constructed,
to be applicable to current
or future needs of school
psychologists.

Statement	Circle One	Comments
-----------	------------	----------

2. As a result of completing 4 3 2 1

this self study, I would
be interested in learning
more about selected instru-
ments.

3. School psychology 4 3 2 1

training programs will
find this guide useful.

4. Rate each possible method
of presentation for this
guide:

A. Self study 4 3 2 1

B. College Course 4 3 2 1

C. NASP Network 4 3 2 1

D. Workshop 4 3 2 1

APPENDIX I

November 25, 1983

Dear School Psychologist:

The attached survey is an attempt at ascertaining your background, interests and areas of expertise as they relate to pre-school youngsters and particularly the developmental assessment of infants and pre-schoolers.

This survey is part of a doctoral project relating to the developmental assessment of these populations. Your cooperation in completing the survey would be appreciated.

Please return these forms to STUART LANGENTHAL, C/O NORTH AREA PSYCHOLOGICAL SERVICES NO LATER THAN DECEMBER 14, 1983.

THANK YOU,

STUART LANGENTHAL,
SCHOOL PSYCHOLOGIST
NORTH AREA PSYCHOLOGICAL SERVICES

PAGE ONE

DIRECTIONS: PLEASE RESPOND TO EACH OF THE QUESTIONS OR STATEMENTS BELOW BY EITHER CHECKING THE MOST APPROPRIATE RESPONSE OR COMPLETING THE ITEM AS OTHERWISE DIRECTED.

1. YOUR AGE:

- A. 22-25 _____
 B. 26-32 _____
 C. 33-42 _____
 D. 43-55 _____
 E. OVER 55 _____

2. YOUR SEX: MALE _____ FEMALE _____

3. HIGHEST DEGREE:

- A. MASTERS _____
 B. MASTERS+15 _____
 C. MASTERS+30 _____
 D. Ed.S _____
 E. EdD./Ph.D. _____

4. WHAT WAS YOUR MAJOR AREA OF STUDY IN QUESTION (3)? _____

5. WITHIN THE CONTEXT OF YOUR SCHOOL PSYCHOLOGY TRAINING, INDICATE THE COURSE WORK COMPLETED:

	<u>YES</u>	<u>NO</u>
A. INDIVIDUAL INTELLECTUAL ASSESSMENT	_____	_____
B. CHILD PSYCHOPATHOLOGY	_____	_____
C. LEARNING DISABILITIES	_____	_____
D. SPEECH/LANGUAGE DEVELOPMENT	_____	_____
E. PERSONALITY DEVELOPMENT	_____	_____
F. PERSONALITY ASSESSMENT	_____	_____
G. CHILD DEVELOPMENT	_____	_____
H. ACADEMIC ASSESSMENT	_____	_____
I. INTERNSHIP (LOCATION	_____	_____

PAGE TWO

6. WITHIN THE CONTEXT OF THESE COURSES, HAVE YOU:

	<u>YES</u>	<u>NO</u>
A. STUDIED INFANT DEVELOPMENT (0-2 YRS)		
B. OBSERVED INFANT BEHAVIOR		
C. EVALUATED/ASSESSED AN INFANT		
D. INTERVIEWED PARENTS		
E. CONDUCTED CASE STUDIES RE: INFANCY		
F. STUDIED PRE-SCHOOL DEVELOPMENT (2-5 YRS)		
G. OBSERVED PRE-SCHOOL YOUNGSTERS		
H. EVALUATED PRE-SCHOOL YOUNGSTERS		
I. INTERVIEWED PARENTS OF A PRE-SCHOOLER		
J. CONDUCTED A CASE STUDY OF A PRE-SCHOOLER		

7. ARE YOU CURRENTLY: (CHECK ALL AREAS THAT APPLY)

- A. CERTIFIED BY THE FLA. DEPT. OF ED. AS A SCHOOL PSYCHOLOGIST _____.
- B. LICENSED BY THE DEPT. OF PROFESSIONAL REGULATIONS AS A SCHOOL PSYCHOLOGIST _____.
- C. LICENSED BY THE DEPT. OF PROFESSIONAL REGULATIONS IN AN AREA OTHER THAN SCHOOL PSYCHOLOGY _____.

8. IF YOU ARE LICENSED AS A SCHOOL PSYCHOLOGIST, ARE YOU:

- A. ENGAGED IN PRIVATE PRACTICE _____.
- B. PLANNING ON ENGAGING IN PRIVATE PRACTICE IN THE FUTURE _____.
- C. UNCERTAIN
- D. NOT INTERESTED.

9. NUMBER OF YEARS AS A CERTIFIED SCHOOL PSYCHOLOGIST.

- A. 0-3 _____
- B. 4-6 _____
- C. 7-10 _____
- D. OVER 10 _____

10. CHECK EACH OF THE POPULATIONS THAT YOU CURRENTLY SERVE AS PART OF YOUR FUNCTIONING AS A CERTIFIED SCHOOL PSYCHOLOGIST:

- A. INFANT CENTER _____
- B. PRESCHOOL _____
- D. ELEMENTARY SCHOOL _____
- E. HOSPITAL _____
- F. MIDDLE SCHOOL _____
- G. HIGH SCHOOL _____
- H. ADULT CENTER _____
- I. OTHER _____

11. IF YOU ARE CURRENTLY FUNCTIONING AS A LICENSED SCHOOL PSYCHOLOGIST, INDICATE THE POPULATIONS THAT YOU HAVE SERVICED.

PAGE FOUR

12. CONSULTATION BETWEEN PROFESSIONALS CAN TAKE SEVERAL FORMS AND FUNCTIONS. NEXT TO EACH OF THE FOLLOWING PROFESSIONS, INDICATE THE FREQUENCY OF YOUR ROLE AS A CONSULTANT (I.E. SHARING INFORMATION, ADVISING, PLANNING) *

	REGULARLY	OCCASIONALLY	NEVER	NOT APPRO.
<u>PEDIATRICIANS</u>				
<u>PEDIATRIC NEUROLOGISTS</u>				
<u>PSYCHIATRISTS</u>				
<u>FAMILY PRACTITIONER</u>				
<u>OTHER MED. PERSONNEL</u>				

* NOTE: REGULARLY (ONCE EVERY TEN CASES: OCCASIONALLY (ONCE EVERY TEN-TWENTY CASES)

13. RANK ORDER THE FOLLOWING PROFESSIONALS IN TERMS OF THEIR USEFULNESS AS A CONSULTANT TO YOU. (# ONE - MOST USEFUL, ETC.)

PEDIATRICIAN _____

NEUROLOGIST _____

PSYCHIATRIST _____

FAMILY PRACTITIONER _____

14. HOW FAMILIAR ARE MEDICAL PERSONNEL (PARTICULARLY THOSE NOTED ABOVE) WITH YOUR ROLE AND FUNCTION AS A SCHOOL PSYCHOLOGIST (CERTIFIED OR LICENSED) (CHECK ONE)

A. MAY BE UNAWARE OF MY ROLE/FUNCTION _____

B. CONFUSE OUR PROFESSION WITH CLINICAL PSYCH. _____

C. SEEN AS A DISTINCT ENTITY/PROFESSION. _____

D. UNCERTAIN HOW THE MEDICAL COMMUNITY VIEWS MY PROFESSIONAL
ROLE. _____

PAGE FIVE

15. A NUMBER OF STATES NOW MANDATE SCHOOL PSYCHOLOGICAL SERVICES TO POTENTIALLY HANDICAPPED INFANTS AND PRE-SCHOOLERS. IF FLORIDA WERE TO MANDATE SUCH SERVICES WITHIN THE PUBLIC SCHOOLS:

- A. I WOULD BE KNOWLEDGEABLE ENOUGH TO ASSESS SUCH CHILDREN (PARTICULARLY INFANTS) _____
- B. I WOULD BE AWARE OF APPROPRIATE INSTRUMENTS _____
- C. I WOULD BE AWARE OF APPROPRIATE CONSULTANTS _____
- D. I WOULD NEED INSERVICE TRAINING FOR THE ABOVE _____

16. INDICATE YOUR FAMILIARITY WITH EACH OF THE FOLLOWING INSTRUMENTS BY PLACING A CHECK IN THE APPROPRIATE COLUMN(S):

INSTRUMENT	HAVE USED	FAMILIAR/NOT USED	NOT FAMIL.
GESELL READINESS TEST			
BRAZELTON NEONATAL SCALE			
GESELL DEVELOP. SCHEDULE			
CATTELL INF. INTELL. SCALE			
BAYLEY SCALES OF INF. DEVEL.			
HUNT-UZGIRIS SCALE			
BEHAVIOR RAT. SCALE FOR AUTISTIC AND OTHER ATYP. CHILDREN			
DENVER DEVEL. SCREENING TEST			
MINN. CHILD DEVEL. INV.			
BOLL-DEVELOP. PROFILE			
PRE-SCHOOL ATTAINMENT REC.			
CALDWELL HOME INVENTORY			
CARY TEMPERAMENT QUEST.			
BRIGANCE DIAG. INV. OF EARLY DEVELOP.			

PAGE SIX

17. HOW OFTEN DO YOU PARTICPATE IN CONTINUING EDUCATION WORKSHOPS, INSERVICE EDUCATION MEETINGS, ETC.
- A. ONCE OR TWICE PER MONTH _____
- B. ONCE EVERY SEVERAL MONTHS _____
- C. ONCE OR TWICE PER YEAR _____
- D. LESS FREQUENTLY _____ INDICATE _____
18. ARE YOU CURRENTLY TAKING ADVANCED COLLEGE OR UNIVERSITY COURSES IN AN AREA RELATED TO SCHOOL PSYCHOLOGY? YES _____ NO _____
19. DO YOU SUBSCRIBE TO A PROFESSIONAL JOURNAL? YES _____ NO _____
IF YES, WHICH ONE(S): _____, _____, _____
20. WHICH METHOD OF CONTINUING EDUCATION MOST SUITS YOUR NEEDS?
- A. SELF STUDY _____
- B. COLLEGE COURSE WORK _____
- C. PROFESSIONAL WORKSHOPS/INSERVICE _____
- D. OTHER _____ (INDICATE) _____
21. DO YOU FEEL THAT THE DEFINITION OF SCHOOL PSYCHOLOGICAL SERVICES PROVIDED BY THE DEPARTMENT OF PROFESSIONAL REGULATIONS:
- A. NEEDS TO BE EXPANDED _____
- B. IS APPROPRIATE AS STATED _____
- C. NEEDS TO BE LIMITED EVEN FURTHER _____
- D. UNSURE; NOT FAMILIAR WITH THE DEPARTMENT'S REGULATIONS _____
22. DO YOU FEEL THAT THE SERVICES YOU ARE PROVIDING AS A CERTIFIED SCHOOL PSYCHOLOGIST ARE BROAD ENOUGH TO SATISFY YOUR PERSONAL AND PROFESSIONAL NEEDS? YES _____ NO _____
- IF "NO", INDICATE THREE AREAS OF EXPANDED SERVICE WHICH WOULD BEST MEET YOUR NEEDS: _____

APPENDIX JPRETEST

Directions: Match the appropriate response in Column B with the statement in Column A. Responses from Column B may be used more than once. Responses should be recorded on the attached answer form. A list of correct responses may be found on the page following the answer sheet.

Column A

1. A former school psychologist who developed a criterion referenced measure of infant development.
2. A popular pediatrician who has developed a newborn neurological exam.
3. Associated with a genetic base for infant growth and development.
4. A newborn rating measure which is popular throughout the world.
5. A Piagetian based infant assessment device.
6. May measure both newborn neurological status as well as infant reactivity to environmental factors.
7. An infant assessment device modeled on the Stanford-Binet Intelligence Scale.
8. A pediatrician noted to be the pioneer in infant assessment.
9. The most popular norm referenced infant assessment device.

Column B

- A. Apgar Score
- B. Uzgiris Hunt Scale
- C. A Gesell
- D. Cattell Scale
- E. Temperment Assessment Battery
- F. High Socioeconomic Status
- G. A. Brigance
- H. B. Terry Brazelton
- I. Neonatal Scale
- J. Maternal IQ
- K. Bayley Scales
- L. Alpern-Boll profile
- M. Poor Standardization
- N. Handicapped population not represented

Column AColumn B

10. A very reliable predictor of four year old IQ.
11. Assessment device in need of extensive renorming.
12. An assessment device based on the work of Chess and Thomas.
13. A developmental questionnaire which may be administered by a paraprofessional.
14. A major drawback of most infant assessment devices.
15. A device associated with an interactional approach to infant assessment.

APPENDIX KSCHOOL PSYCHOLOGIST BACKGROUND IN INFANT STUDIES

<u>STUDY AREA</u>	<u>COMPLETED STUDY</u>
A. Studied Infant Development	72%
B. Observed Infant behavior	32%
C. Evaluated an Infant	21%
D. Interviewed Parents Re: Infant Development	36%
E. Conducted Case Studies Re: Infancy	14%
F. Studied Pre-School Development (2-5 yrs.)	87%
G. Observed Pre-School Youngsters	78%
H. Evaluated Pre-School Youngsters	72%
I. Interviewed Parents of a Pre-Schooler	68%
J. Conducted a Case Study of a Pre-Schooler	61%

APPENDIX LMASTERY TEST

1. All of the following are measures of infant growth/development except:
 - A. Uzgiris-Hunt Scales
 - B. McCarthy Scales
 - C. Cattell Scale
 - D. Bayley Scale
2. An Apgar rating of 2 may be associated with:
 - A. Impending death
 - B. Later cognitive difficulties
 - C. Later motor difficulties
 - D. Retardation
3. The most reliable predictor of the total Apgar Score is:
 - A. Heart Rate
 - B. Respiration
 - C. Skin Color
 - D. Muscle Tone
4. B. Terry Brazelton:
 - A. Has been associated with the work of Gesell and Cattell.
 - B. Is a prominent pediatrician, known for his infant care books, etc.
 - C. Is a neurologist known for his work on infantile autism.
 - D. Has identified genetic determinants for infant behavior.

5. The Neonatal Assessment Scale is basically a 1 assessment instrument which is used to evaluate infants relative to its 2.
- A. Pediatric, birth order
 - B. Motor, prematurity
 - C. Neurological, environment
 - D. Cognitive, language skills
6. The Brazelton Scales, in addition to being a neonatal (medical) measure, also purports to provide information regarding:
- A. Individual differences
 - B. Later personality
 - C. Interactive efforts between caregiver and infant
 - D. Both A and C
7. Which of the following was not originally designed as a norm referenced instrument?
- A. Cattell Infant Intelligence Scale
 - B. Bayley Scales
 - C. Brigance Inventory
 - D. Alpern-Boll Developmental Profile
8. Which of the following infant assessment devices are in need of extensive re-norming:

- A. Cattell Infant Intelligence Scale
 - B. Gesell Developmental Schedule
 - C. Brigance INventory
 - D. A and B
9. The Brigance Inventory was designed:
- A. To be used as a norm referenced test and as a curriculum guide.
 - B. To be used as a diagnostic tool for youngsters aged 6-7 years.
 - C. To be a criterion referenced tracking system for parents and professionals.
 - D. To evaluate over 125 skills of newborns.
10. Which of the following scales does not incorporate parental judgment:
- A. Denver Developmental Screening Test
 - B. Termperament Assessment Battery
 - C. Brigance Inventory
 - D. Brazelton Scale.
11. The Bayley Scales of Infant Development was designed to measure child development up to the age of:
- A. Two years
 - B. Thirty-six months
 - C. Twelve months
 - D. Thirty months

12. The philosopher orientation of the Bayley Scales lies between which two researchers:
- A. Gesell
 - B. Piaget
 - C. Singer
 - D. Cattell
13. Which of the following was the better predictor of a high four year old IQ?
- A. High Mental Development Index
 - B. High Psychomotor Index
 - C. High SES (Socio-economic status)
 - D. High Ratings on the Infant Behavior Record
14. Which of the following is not true regarding the Bayley Scales:
- A. By late infancy, an infant should generally follow the pattern of a months growth (on the Bayley), over a months time.
 - B. Cerebral Palsy may not be definitely diagnosed until after nine months.
 - C. The scale is a powerful predictor (re IQ) for advanced 3 month old babies.
 - D. Familial retardation may not be identified until after the first year.
15. Which of the following is true regarding the Bayley Scales?

- A. It is seen as a downward extension of the Binet.
 - B. The Infant Behavioral Record portion yields a score comparable to the Temperament Assessment Battery.
 - C. Specific guidelines regarding examiner competency are provided in the manual.
 - D. Reliability studies yield higher correlations than validity studies.
16. Which is the correct chronological development of the infant scales reviewed?
- A. Gesell, Uzgiris-Hunt, Cattell, Bayley
 - B. Cattell, Gesell, Uzgiris-Hunt, Bayley
 - C. Gesell, Cattell, Bayley, Uzgiris-Hunt
 - D. Uzgiris-Hunt, Bayley, Gesell, Cattell
17. The Cattell Infant Intelligence Scale is similar in format to:
- A. The Uzgiris-Hunt Scale
 - B. The original WISC Scale
 - C. The Stanford-Binet
 - D. The Gesell Schedule
18. The 1978 Buros review of the Cattell Scale suggests that:
- A. The 1960 revision was extensive and resulted in a highly reliable and valid instrument.
 - B. The continued use of the "IQ" measure for this scale was supported.
 - C. The Cattell probably measures the same sort of things as

- C. The Bayley Mental Development Index.
- D. The original normative group was representative of the 1940 census.

19. A primary concern(s) regarding the use of the Denver Development Screening test is:

- A. Its use for children over thirty months of age is questionable.
- B. Its lack of "abnormal" youngsters in the sample.
- C. Its overreferral rate.
- D. Its validity coefficient of .84-.95.

20. A concern over the use of such instruments as the Bayley, the Denver, the Gesell, etc. relates to:

- A. Their validation against well known intelligence scales when, in fact, IQ is not being measured.
- B. Their limited recognition of interaction variables between infant and caregiver.
- C. Their over-reliance on purely genetic determinants of behavior/development.
- D. Both A and B.

21. An advantage in using the Temperament Assessment Battery (over prior infant temperament measures) is:

- A. Its sole reliance on clinical judgment.
- B. Its national standardiation.
- C. Its reliance on parent, teacher and clinician input.
- D. Its potential use with infants.

22. The Alpern-Boll Profile is similar in intent to the:
- A. Brazelton Neonatal Scale
 - B. Bayley Scale
 - C. Denver Developmental Screening Test
 - D. Cattell Scale
23. Which instruments might you select if you were attempting to develop a screening/diagnostic testing program (for infant) in your setting?
- A. Cattell/Bayley
 - B. Binet/Gesell
 - C. Denver/Temperament Battery
 - D. Brigance/Bayley
24. Current philosophy regarding infant assessment may be related to:
- A. Measuring/isolating infant IQ.
 - B. Measuring parenting skills.
 - C. Observing/measuring infant/caregiver interaction.
 - D. All of these areas.
25. Which of the following is true regarding the Gesell Scale?
- A. It has been used as a basis for subsequent infant scales.
 - B. It is highly 'environmental' in approach.
 - C. It requires limited examiner training.
 - D. It has not been revised since the 1920's.

Optional Essay:

Assume you were assigned the responsibility of developing an infant screening and assessment program for your office, clinic, school setting, etc.

Select (and discuss in detail) the appropriate/applicable test instruments and justify your choices.

APPENDIX MROLE DEFINITION AND DELIVERY OF SERVICES

- A. Current School Psychological Services Being Provided are Broad Enough to Satisfy Your Personal and Professional Needs.

Yes 38%

No 68%

- B. Definition of Services For Licensed School Psychologists

- | | |
|--|-----|
| 1. Needs to be expanded | 46% |
| 2. Is appropriate as stated | 23% |
| 3. Needs to be limited | 0% |
| 4. Unsure, not familiar with regulator | 31% |

APPENDIX NPre and Post Test Scores Percentages

<u>PARTICIPANT</u>	<u>PRE-TEST PERCENTAGE</u>	<u>POST-TEST PERCENTAGE</u>	<u>SCORE CHANGE</u>
A	81	90	+ 9
B	74	86	+12
C	88	96	+ 8
D	88	92	+ 4
E	74	84	+10

APPENDIX OPost Test Evaluation

<u>STATEMENT</u>	<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
1	100%	0%	0%	0%
2	80%	20%	0%	0%
3	100%	0%	0%	0%
4	80%	20%	0%	0%
5	60%	40%	0%	0%

APPENDIX P
STUDY GUIDE EVALUATION DATA

<u>STATEMENT</u>	<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>DISAGREE</u>	<u>STRONGLY DISAGREE</u>
<u>Section A</u>				
1	100%	0%	0%	0%
2	100%	0%	0%	0%
<u>Section B</u>				
1	60%	40%	0%	0%
2	100%	0%	0%	0%
3	100%	0%	0%	0%
4	100%	0%	0%	0%
<u>Section C</u>				
1	0%	0%	0%	100%
2	60%	40%	0%	0%
3*	100%	0%	0%	0%
4				
A	100%	0%	0%	0%
B	60%	40%	0%	0%
C**	100%	0%	0%	0%
D	100%	0%	0%	0%

* "can be completed at a faster pace by professionals in field"
 ** only School Psychologists responded to this item.